What is claimed is:

1. A method for conferring protection on a population of cells associated with ischemia in a subject, comprising:

a) providing *ent*-17β-estradiol; and

b) administering an effective amount of *ent*-17β-estradiol over a course that includes at least one dose within a time that is effectively proximate to the ischemic event, so as to confer protection on the population of cells.

2. A method according to claim 1, wherein the proximate time precedes the ischemic event.

3. A method according to claim 1, wherein the proximate time follows the ischemic event.

4. A method according to claim 1, wherein the proximate time is within 12 hours of the ischemic event.

5. A method according to claim 1, wherein the ischemic event is selected from the group consisting of a cerebrovascular disease, stroke, subarachnoid hemorrhage, myocardial infarct, surgery and trauma.

6. A method according to claim 1, wherein the ischemic event is a stroke.

7. A method according to claim 1, wherein the ischemic event is a myocardial infarct.

8. A method according to claim 6, wherein the cells are neurons.

9. A method according to claim 6, wherein the cells are endothelial cells.

10. A method according to claim 6, wherein the cells are cardiac myocytes.

11. A method according to claim 1, wherein the estrogen compound is administered at an effective dose, wherein the effective dose provides a plasma concentration in the subject in the range of 10-500 pg/ml.

12. A method for conferring protection on a population of cells associated with ischemia, in a subject following an ischemic event, comprising:

a) providing *ent*-17β-estradiol formulated in an oil vehicle; and

b) administering an effective amount of the compound over a course that includes at least one dose within a time that is effectively proximate to the ischemic event, so as to confer protection on the population of cells.

13. A method according to claim 12, wherein the formulation is administered by a route selected from the group consisting of subcutaneous, transdermal and intravenous.

14. A method according to claim 12, wherein step (b) further comprises; administering the estrogen compound by subcutaneous injection.

15. A method according to claim 12, wherein step (b) further comprises; administering the estrogen compound intravenously.

16. A method of treating a neurodegenerative disorder in a subject, comprising:

a) providing ent-17β-estradiol in a pharmaceutical formulation; and

b) administering the formulation to the subject.

17. A composition, comprising *ent*-17β-estradiol, 17-acetate.

18. A pharmaceutical formulation of an enantiomer of an estrogen compound, the formulation having insubstantial sex related activity, comprising: an effective amount of the enantiomer suitable for conferring protection on a population of cells in a subject .

19. A method for conferring protection on a population of cells, comprising:

(a) providing *ent*-17β-estradiol; and

(b) administering an effective amount of the *ent*-17β-estradiol so as to confer protection on the population of cells.

20. A method for protecting cells in a subject from degeneration during or after an ischemic event, comprising:

(a) identifying a susceptible subject;

(b) providing an effective dose of *ent*-17β-estradiol prior to the ischemic event; and

(c) protecting cells from degeneration otherwise occurring in the absence of the *ent*-17β-estradiol.

21. A method of treating a myocardial infarct in a subject, comprising:

(a) providing an effective dose of *ent*-17β-estradiol in a pharmaceutical formulation; and

(b) administering the formulation to the subject so as to reduce the adverse effects of the myocardial infarct.

22. A method of treating an ischemic event in a subject, comprising:

(a) providing *ent*-17β-estradiol; and

(b) administering an effective cumulative amount of the enantiomer over a course that includes a first dose within a time that is effectively proximate to the ischemic event so as to confer protection on the population of cells.

add A'